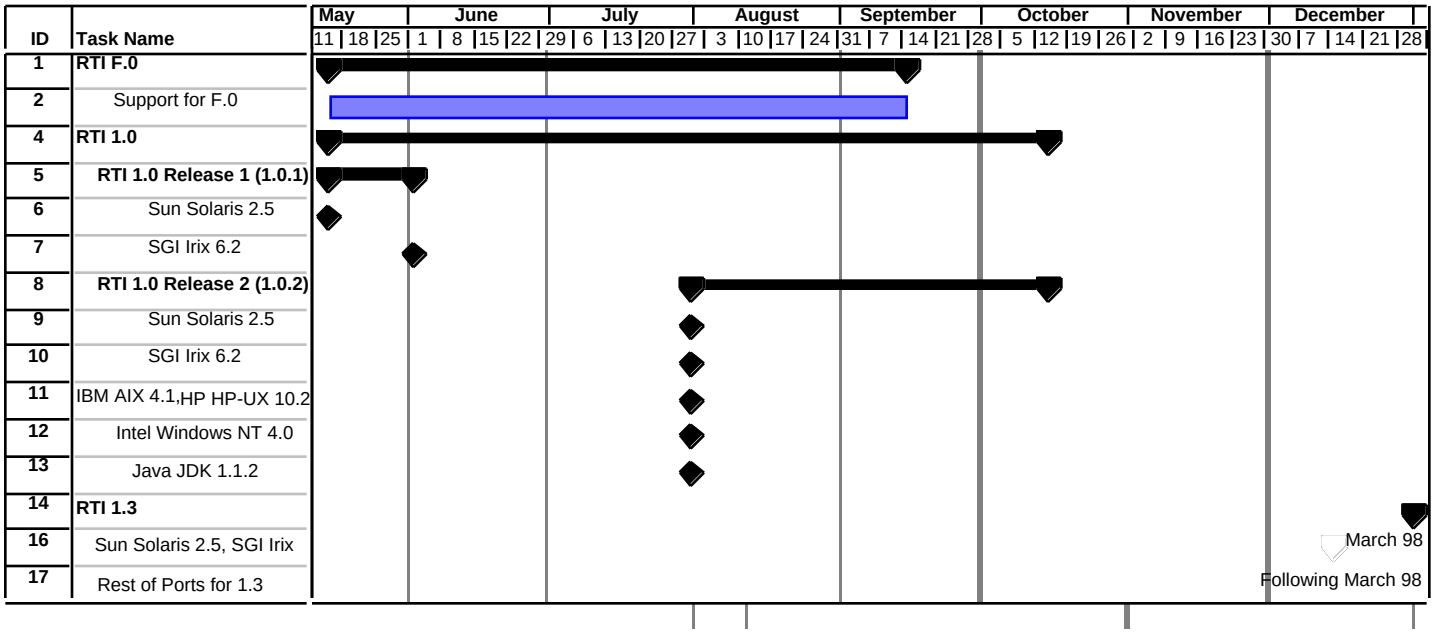
RTI Update

Dr. Russ Richardson, SAIC

10 December 1997

RTI 1 Schedule Update



- **Support for F.0 ended Sept 15, 1997**
- **RTI 1.0 Release 1 (1.0.1)**
  - **Sun Solaris 2.5 : May 15, 1997**
  - **SGI Irix 6.2 : June 2, 1997**
- **RTI 1.0 Release 2 (1.0.2)**
  - **IBM AIX 4.1, HP HP-UX 10.2, Intel Windows NT 4.0, Sun Solaris 2.5, SGI Irix 6.2 : July 31, 1997**
- **Java JDK 1.1.2 : October, 1997**
- **RTI 1.0 Release 3 (1.03) (Fixed NT-interoperability, Added Dec Alpha port)**
  - **IBM AIX 4.1, HP HP-UX 10.2, Intel Windows NT 4.0, Sun Solaris 2.5, SGI Irix 6.2 : Nov 6, 1997**

Porting Status

- **1.0V3 is the last of the RTI 1.0 releases, all ports have been Completed**

- **Core Platforms**
  - **Windows NT 4.0, Solaris 2.5, IRIX 6.2, AIX 4.1.5, HP UX 10.20 All available now**
    - **All but NT have Jager, Hello world and test federate, NT has Hello world and Jager**
- **Other Platforms**
  - **Windows 95, Dec Alpha Available now**
    - **released with Jager, Hello world, and test federate**

RTI 1.3 Status

- **Release in March 98**
  - **Full Functionality of Spec 1.3**
  - **Sun Solaris 2.5 and SGI Irix 6.2**
  - **Programmers guide, Install Program, Jager, Test Federate, Hello World**
- **Ports for Supported platforms to follow March release**
  - **Win 32 (NT 4.0 and 95), HP UX 10.20**
  - **Programmers guide, Install Program, Jager, Test Federate, Hello World**
- **Evaluating Ports to other platforms**
  - **Linux, AIX 4.1.5,...**

The RTI Development Process
Java 1.0 and RTI 1.3

Dr. Richard Weatherly , MITRE

10 December 1997

Java RTI 1.0

- **Capability**
  - **All functionality of the C++ implementation of the RTI 1.0**
  - **Interoperates with all ports of the C++ RTI 1.0**
  - **Complete rewrite in Java**
  - **Includes Java Hello World and Test Federate**
- **Status**

- **preAlpha**	**3**	**June**	**Process model**
- **Alpha**	**11**	**June**	**80%**
- **R1**	**30**	**June**	**100%, no multicast**
- **R2**	**8**	**August**	**100%, JDK 1.1.2**
- **R3**	**20**	**August**	**Service log arguments**
- **R4**	**17**	**Sept**	**Runtime concerns, JDK 1.1.3**
- **Beta**	**10**	**Nov**	**Addresses all known problems**

Java RTI 1.0

- **Purpose**
  - **Insure that the HLA works with evolving technologies such as the Web**
  - **The Java RTI is an experimental initiative outside the RTI 1.0, 1.3 production line**
- **Plans**
  - **Beta Testing is underway**
  - **Nine organizations participating**
  - **Test reports will be collected by Penny Grammer in January 1998**
  - **Beta reports will be evaluated by DMSO**

Beta Tester Application

- **Please describe the operating hardware platform, the Operating System, and JAVA Environment which would be employed at this proposed Beta test site.**
- **Please provide a short characterization of the application to be used in this proposed Beta test, including what specific RTI Services would be used in the application.**
- **Please describe the scope of the proposed Beta test application, including:**
  - **How many Federates are planned?**
  - **Estimated number of Objects?**
  - **Estimated number of Classes and Attributes in the Federation Execution Details (FED)?**

Beta Test Report

“As a Beta Test participant, we will ask that you complete test activities and submit a descriptive written summary of the test experience (including a Federation Execution Planners Workbook, the Federation Object Model (FOM), and the Federation Execution Details (FED) file used in the test application) by 1 January 1998. Please address this information via e-mail attachment to Ms. Penny Grammer, DMSO Support at <pgrammer@msis.dmso.mil>.”

What's Up With RTI 1.3?

- **History of the RTI**
  - **STOW's RTI-s has been the focus of experience with Data Distribution Management**
  - **RTI F.0 provided (Dec 1996) the majority of I/F Spec 1.0**
  - **RTI 1.0 provided (May 1997) all I/F Spec 1.1 services with the exception of DDM**
  - **RTI 1.3 will provide all I/F Spec 1.3 services**
- **The approach**
  - **This summer the RTI team did an experiment which crudely joining the top of RTI 1.0 with the bottom of RTI-s**
  - **The team learned from this that large parts of both systems are reusable**
  - **Developed a plan that will facilitate incremental development of RTI 1.3**

Results of the RTI-s/RTI 1.0 Experimentation

- **What are the big reusable pieces ?**
  - **RTI-s**
    - **Stream management**
    - **Bundling**
    - **Message segmentation**
  - **RTI 1.0**
    - **Save/Restore framework**
    - **Time management**
    - **Ownership management**

Intermediate Steps

- **Star One** **29 August**
  - Object database extracted and promoted to a major system object
  - FED manager extended to accept new file format
    - spaces
    - root classes
    - signature
- **Star Two** **29 August**
  - RTI-s RID reader promoted to a major object
  - RTI 1.0 transport manager and FedEX modified to be stream clients
- **R1** **19 September**
  - Merge Star One and Two under a single source management system

Intermediate Steps

- **R2** — **3 October**
  - **Bucket release**
  - **Architecture documentation**
- **R3** — **17 October**
  - **Spec 1.2 API, Reduced library dependence**
- **R4** — **31 October**
  - **New internal architecture**
- **R5** — **21 November**
  - **DDM, Time, Ownership management**
- **R6** — **19 December**
  - **All but new save/restore, synchronization sevice, and passive subscription**
- **R7** — **23 January**
  - **New save/restore**